



AChemS

Association for
Chemoreception Sciences

Fostering Chemical Senses Research and Understanding Smell and Taste in Health and Disease

NEWSLETTER

Spring 2007

Message from the President

Leslie Tolbert, PhD

As president-elect last year, I had the pleasure of leading the awards committee through the daunting task of selecting the winners of many of AChemS' awards from among an impressive array of nominees. This year as president I am delighted to be working with an energetic and insightful Executive Committee, which includes President-Elect Diego Restrepo, Past-President Chuck Derby, Program Chair Trese Leinders-Zufall, Program Chair-Elect Tom Finger, Secretary Scott Herness, and Treasurer Mike Michel, Councilors Linda Barlow and Pam Dalton, and Membership Chair Nancy Rawson. Mike Meredith has continued to lead the Industrial Liaison Committee and Claire Murphy the Clinical Relations Committee with vigor, and Debi Fadool has continued to be a most creative and energetic advisor on many AChemS activities. It has been an exciting year, with a number of important issues to face.

Federal Funding and Scientific Advocacy

At a time when biomedical research holds unmatched promise to improve the human condition, the NIH budget is flat-trending and is creating a situation none of us imagined: the payline at NIH is lower than it was in the early nineties and is expected to get worse before it gets better. One can argue that in lean times the best of the best research will still be funded – but our peer review system isn't designed to distinguish excellence (and predict success) with the fineness of grain needed to ensure that ... Furthermore, tight financial times can push us to fund the science

that shows the most short-term promise for clinical impact – leaving behind the important base of research upon which translational breakthroughs will always depend.

Scientific societies can play an important role in advocating for good research, properly funded. This year, Diego and I have developed a small federal liaison group composed of several members of the executive and long-range planning committees. The group includes Charlie Greer and Michael Leon as well as the two of us, and we will work in close communication with Barry Ache and John Ngai who sit on Council and can advise us of current events and trends. We all welcome your suggestions as we actively engage with NIH's Center for Scientific Review, NIDCD's Director of the Taste and Smell Program Barry Davis, and NIDCD Director Jim Battey.

Changes at L & L Management Services

Please join me in congratulating Tisha Kehn, L&L's team leader for AChemS, who was recently promoted to the position of 2nd Vice President of L&L and is now Executive Director of AChemS. Lori Anderson, who is L&L's Vice President and used to be our Executive Director, assures us that Tisha will continue to be our primary contact at L&L, attending to all of the organizational aspects of our annual meetings and supporting the activities of the AChemS Executive Committee year 'round.

New website

Tisha and her staff at L&L have been

working diligently on a new website for our society. They are moving to a new webmaster, and to save on costs are doing much of the required data conversion themselves. A major new feature of the website will be convenient e-commerce capabilities for payment of dues and annual meeting fees. The site is now live and we know you will help us to identify unforeseen problems as they arise. I thank Tisha for her hard work on this project.

President's Message continued on page 2

2006 Newly Elected AChemS Officers

Peter Brunjes, PhD, President-elect
Nirupa Chaudhari, PhD, Councilor
Carol Christensen, PhD, Treasurer
Don Wilson, PhD, Program Chair Elect

226 Total votes were counted.

THIS ISSUE INCLUDES

- Pictures from AChemS XXVIII
- AChemS 2006 Awardees
- AChemS 2007 Election Results
- Job listings

Message from President (continued)

We will soon need to appoint a new Executive Editor for Chemical Senses, to replace Barry Ache, as well as three members of the Editorial Board. It's not too late to suggest good replacements!

For your information, AChemS appoints two of the five Executive Editors of the journal. Others are appointed by ECRO and by JASTS. In 2006, Susan Travers graciously replaced David Smith as an AChemS Executive Editor, and the other current Executive Editors are Drs. Robyn Hudson and R.A. Steinbrecht from ECRO and Dr. Hideto Kaba from JASTS. We all owe Barry a very special thank you for his dedicated and effective service as Executive Editor since 1999.

Let me also remind you that last summer, Oxford University Press made available the complete archive of Chemical Senses articles. AChemS members who have activated their online access to Chemical Senses can find the complete online archive

(over 3 million pages!) by visiting <http://chemse.oxfordjournals.org/archive/>. We are grateful to Claire Bird at OUP for this and for continuing her efforts to have the archive available on PubMed.

Site of Future Meetings

We are quickly outgrowing the Hyatt Sarasota, and efforts to identify a new meeting site have a new urgency. Taking into account membership polls that consistently have indicated a strong desire to stay in or near Sarasota, Tisha Kehn and her L&L colleagues have proposed a number of alternative hotels. Diego Restrepo will soon visit the leading contender and report to the Executive Committee on its appropriateness for us. Another popular idea that emerged from a 2005 poll was to alternate meetings between east and west coasts. That appears to be too expensive an option, as we benefit from agreements for long-term relationships with hotels. Instead of alternating meeting sites, we most probably will try to use the opportunity of joint ISOT/AChemS meetings

to meet in the west. In 2008, the ISOT/AChemS meeting being organized by Program Chair-Elect Tom Finger will be held in San Francisco. On the 2005 recommendation of our Long Range Planning Committee, Tom and Tisha seriously considered several western sites before making their final recommendation for this site.

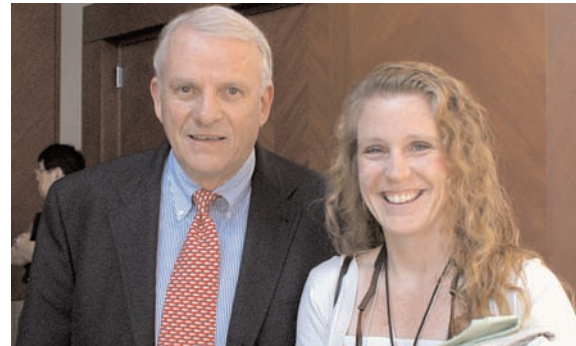
2007 Annual Meeting

I know you will find this year's annual meeting exciting and stimulating. We have made some changes to better integrate our industrial partners and clinical members into the program, and have organized symposia on a wide variety of topics. I can't help promoting the Presidential Symposium, which will highlight recent transformational advances in cellular imaging and control of cellular excitability. I look forward to our carrying on the tradition of intense and collegial sharing of ideas that is the hallmark of AChemS meetings. ♦

Councilor's Report on Student Travel Awards and Polak Junior Scientist Awards

For the 2006 meeting, the Association provided funds for 33 student travel awards, ranging from \$250 to \$600.00 (total \$11,100.00). In addition, 24 students received housing awards at the Hyatt.

2006 was the first year the Association was able to provide financial support for junior scientists to attend the meeting. This was made possible through a generous gift from the Ernest Polak family. These awards are made based on financial need and scientific merit. In 2006, 12 junior scientists (7 domestic, 5 international) received up to \$600 or \$800 in support to attend the meeting in Sarasota. We anticipate being able to provide travel and housing support for the same number of students and 10 junior scientists for the 2007 meeting.



Debra Ann Fadool, AChemS XXVIII program chair, pictured with Dr. John Dowling, Harvard University who delivered the Givaudan Lecture, "Fishing for Novel Genes".



"The Monell Girls", current and ex post-docs from Monell Chemical Senses Center, Philadelphia, PA.

Back row (from left) Drs. Catherine Forestell, Maja Petrova, Beth Gordesky-Gold, Catherine Peyrot des Gachons, Kristin Field, Michelle Gallagher. Front row (from left) Mari Sandell, Yanina Pepino, Veronica Galindo-Cuspinera and Claudia Dambuis.

A Look Back at AChemS XXVIII





Prelude to AChemS XXIX

Trese Leinders-Zufall, PhD
(trese.leinders@uks.eu)

The 29th annual meeting of the Association for Chemoreception Sciences will be held at the Hyatt Sarasota Hotel in Sarasota, Florida from April 25-29, 2007. The 2007 AChemS program will include the following:

Givaudan Lecture:

Dr. Gene E. Robinson from the University of Illinois at Champaign-Urbana will be this year's Givaudan lecturer. His research group studies the regulation of social behavior. The research is integrative, involving perspectives from evolutionary biology, behavior, neuroscience, molecular biology, and genomics.

SYMPOSIA:

- **Connecting genetics and perceptual variations:** The theme of this meeting is to highlight how information from the human genome project and human genetics is being applied to explain individual human variation in the perception of color, taste, and smell.
- **"Human axillae: Why?":** This symposium examines the sources and functions of volatile compounds produced in the human axillae. Because the products of axillary glands are commonly labeled as malodorous and an industry has grown up around neutralizing this malodor, symposium speakers will discuss the concept of malodor and the strategies employed by the fragrance industry and sensory scientists to reduce or eliminate malodor.
- **Olfaction beyond the olfactory bulb:** From perception to memory: The basic theme of the symposium is how olfactory bulb output is translated into an integrated olfactory perception. It brings together multidisciplinary, comparative approaches to the basic questions of odor perception and memory.
- **Neural coding in the chemical senses:** This symposium will focus on gustatory and olfactory coding as viewed from a systems/network perspective.
- **Gastrointestinal chemosensation:** This is a newly arising field that is based on the observation that elements of the taste transduction pathway are present in the gastrointestinal tract and in specialized enteroen-

docrine cells. The questions addressed by this symposium is what role these chemosensory signaling elements play in appetite regulation, specific satieties, gut motility and glucose homeostasis.

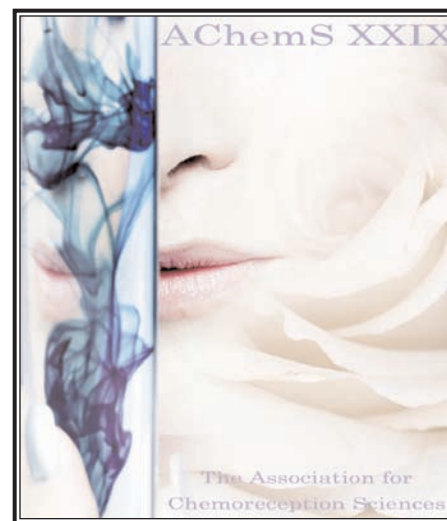
- **Contact chemosensory perception: From receptor to behavior:** This symposium will present progress especially in functional characterization of specific receptors or receptor families in taste and pheromone perception. The focus will be on genetically tractable systems, mainly *Drosophila* and mouse, with a specific emphasis of the role of receptors, on various social and sexual behaviors.
- **Parallel processing by multiple olfactory subsystems:** In addition to the two major chemosensory systems (main olfactory epithelium and vomeronasal organ), there are reports of several subtypes of chemosensory neurons or epithelial cells using distinct signal transduction cascades. This symposium will focus on these newly reported olfactory subsystems.

OTHER SPECIALITY SYMPOSIA:

- **Presidential Symposium**
- **Industry Symposium:** After last year's success, there will be again a platform for industry, policy makers as well as academic scientists and graduate students to discuss applications and knowledge gleaned from industry and basic science. The symposium will be followed by a reception with buffet and cash bar.
- **GWIZ Science Center:** Educational outreach program for local Sarasota students. Please join to give demonstrations about the chemical senses. Contact for this program is Gina Nelson (gnelson.chw@gmail.com).

WORKSHOPS:

- **NIH Workshop**
- **Odor signaling in humans:** Candidate compounds for human signaling molecules present in human secretions have been proposed to signal identity, emotion, gender and reproductive state. The intention of this workshop is to review and discuss the current state of the field. There is still much controversy about the whole issue of



human pheromones and disagreement about the behavioral consequences of exposure to these compounds.

- **Genomics approaches to study chemosensory receptors:** In studying the genetics of chemosensory perception, tools such as bioinformatics analysis, comparative genomics, and gene expression shed light on the evolution of the chemical senses and species-specific selective pressures that shaped the repertoire of chemosensory receptor genes. This workshop will discuss these types of analysis and its usefulness in inferring the function of orphan receptors and identifying novel protein structure domains.

SOCIAL ACTIVITIES:

- **Opening Buffet**
- **Minority and Clinical Travel Awardees Luncheon**
- **Industry Reception**
- **ChEMA (Chemosensory Enterprise and Mentorship Alliance) Social:** Social to help ChEMA members and senior AChemS members get to know each other, network and talk about issues important to junior chemosensory scientists.
- **Clinical Luncheon:** Special Lecturer: Dr. L. Chin from NIDCD will talk about translational and clinical research programs.
-and of course the beach.

Association for Chemoreception Sciences

2006-2007 BUDGET REPORT

REVENUES

GENERAL

Membership Dues--Regular	\$92,000.00
Membership Dues--Student/Emeritus	7,500.00
Membership Dues--Corporate	20,000.00
Interest/Investment Interest	5,575.00
Other	
ISOT Contributions	4,000.00
	-
Total General	\$129,075.00
	-

ANNUAL MEETING

Registration Fees	150,000.00
Annual Meeting Sponsorship	6,500.00
Exhibitor Fees	2,250.00
Abstract Fees	18,000.00
T-Shirt & Misc Sales	200.00
Clinical Luncheon	1,500.00
Grant Income (2003-2004)	
Ernest Polak Fund	42,000.00
	-
Total Annual Meeting	\$220,450.00
	-

GRANT INCOME

AM Symposia Speaker Registration	998.40
AM Minority Student Registration	832.00
AM Clinical Registration	520.00
AM OUP Symposia Page Charges	572.00
AM Audio/Visual -- Symposia	1,352.00
AM Management Services	7,852.00
AM Advertising -- Minority Travel Fellow	2,137.20
	-
Total Grant Income	\$14,263.60
	-

TOTAL REVENUES

\$363,788.60
=====

EXPENSES

ADMINISTRATIVE EXPENSES

Management Fee	\$63,002.00
UF Management Fee	2,000.00
Telephone	2,000.00
Office Supplies	500.00
Postage & Broadcast Fax	1,000.00
Printing	450.00
Copy/Duplicating	600.00
Website	31,000.00
Bank/Credit Card Charges	6,000.00
Insurance	1,500.00
Other	850.00
Professional Fees -- Misc	
Professional Fees -- Audit & Taxes	8,500.00
Storage	490.00
ECRO Fellow Award	4,000.00
	-
Total Administrative	\$121,892.00
	-

PUBLICATIONS

Newsletter	
Printing/Graphic Design	400.00
	-
Total Newsletter	\$400.00
	-
Chemical Senses Journal	
Subscriptions	30,500.00
Symposia Page Charges	
	-
Total Chemical Senses Journal	\$30,500.00
	-

DUES & CONTRIBUTIONS

COMMITTEES

Executive Committee	
Staff Travel	1,000.00
Meeting Expenses	1,250.00
SFN Travel Grant	500.00
	-
Total Executive Committee	\$2,750.00
	-

Education Committee

Meeting Expenses	100.00
	-
Total Education Committee	\$100.00
	-

Program Committee

Meeting Expenses	100.00
	-
Total Program Committee	\$100.00
	-

Public Relations Committee

Meeting Expenses	300.00
Other	
	-
Total Public Relations Committee	300.00
	-

Clinical Relations Committee

Meeting Expenses	100.00
	-
Total Clinical Relations Committee	100.00
	-

Finance Committee

Meeting Expenses	100.00
Other	50.00
	-
Total Finance Committee	\$150.00
	-

Industrial Relations Committee

Meeting Expenses	500.00
	-
Total Industrial Relations Cmte	\$500.00
	-

Elections Committee

Meeting Expenses	100.00
	-
Total Elections Committee	\$100.00
	-

Membership Committee

Meeting Expenses	100.00
	-
Total Membership Committee	\$100.00
	-

Long Range Planning Committee

Exec Cmte / Staff TSO	
Meeting Expenses	200.00
Other	50.00
	-
Total Long Range Planning Committee	\$250.00
	-

Ad Hoc Committees

Meeting Expenses	100.00
	-
Total Ad Hoc Committees	\$100.00
	-

ANNUAL MEETING

Supplies / Awards	2,000.00
Shipping/Drayage	400.00
Staff TSO	3,000.00
T-Shirt/Other	400.00
Social Events	750.00
Additional/Temp Staffing	200.00
Food/Beverage	72,000.00
Printing	8,500.00
Photographer	1,000.00
Postage	25.00
Other	500.00
Speaker's Dinner	450.00
A/V Support	20,000.00
Abstract Services	15,000.00
Insurance--Event Liability	2,750.00
Gratuity	400.00
Educational Outreach--Food & Beverage	400.00
Clinical Luncheon (A/V - F&B)	2,500.00
Chema Mentoring Program	3,000.00
Student Travel Funds	
Future Site Visits	
Poster Board Expenses	3,000.00
Symposia Speaker TSO (Non-grant)	5,000.00
ISOT Expenses	1,000.00
Miscellaneous Exps--POLAK FUND	1,000.00
Invited Symp Spkr TSO--POLAK FUND	8,000.00
Student Travel Award--POLAK FUND	14,000.00
Other Awards--POLAK FUND	19,000.00
	-
Total Annual Meeting	\$165,275.00
	-

AWARDS

Tucker Award	650.00
Young Investigator Award in Olfaction	2,000.00
Max Mozell Award	2,000.00
Student/Postdoc Art Award	500.00
	-
Total Awards	\$5,150.00
	-

GRANT EXPENSES

AM OUP Symposia Page Charges	572.00
AM Audio/Visual -- Symposia	1,352.00
AM Management Services	7,852.00
AM Advertising -- Minority Travel Fellow	2,137.00
	-
Total Grant Expenses	\$11,913.00
	-

REPRESENT AT OTHER MTGS

	-
	-

TOTAL EXPENSES

	\$358,680.00
	-

TOTAL REVENUES

	\$363,788.60
	-

NET REVENUES/EXPENSES

	\$5,108.60
	=====

GWIZ 2006

Gina Nelson, PhD,
Education Committee Chair
(gnelson.chw@gmail.com)

With almost 500 students in attendance, the 2006 AChemS educational outreach event at the GWIZ science museum was a big success. With the help of the director of education, Judith Watson, we had many enthusiastic students and museum visitors. In 2006 there were several new demonstrations, including naming familiar odors, comparative anatomy of brain specimens, a microscopic view of taste buds, a demo of clinical evaluations, and find the mystery odor group. In addition to our new demos, we had a booklet that provided preliminary information for teachers and served as a "data" book for the junior high students.

The students used these booklets to gather their "data" from the demos to take back to the classroom and use in follow-up lessons on taste and smell.

You may ask, "how do I participate in such a lively event where I can influence those young minds"? The GWIZ event takes place on Wednesday morning before the actual meeting begins. This year the educational outreach will take place on April 27th from 9:00-12:30 at GWIZ, across the street from the Hyatt Hotel. Send an email if you are interested in participating. Even if you do not have a demo idea of your own, we will help you find a way to inspire those young minds. Enlighten the day of a child, volunteer!



ChEMA Report

Suzanne Sollars, PhD

ChEMA (Chemosensory Enterprise and Mentorship Alliance) is in its fourth 'official' year at AChemS. For those not familiar with ChEMA, we represent the nearly 200 AChemS members who have received their advanced degree (e.g. Ph.D., M.D., D.V.M., D.D.S., terminal Master's) within the past 10 years. AChemS has been increasingly supportive of ChEMA, providing funds for a ChEMA reception every year and paying special attention to ensuring ChEMA colleagues receive recognition through awards and travel grants.

This year, ChEMA will sponsor a reception on Friday, April 27, 5 – 7 p.m. in the Florida Room. No need to sign-up. If you received your advanced degree between 1996 and 2007, you are invited to join us for food, beverage, a chance to get to know fellow ChEMA members and network with some of our 'senior' AChemS members too.

If you have questions or suggestions for future ChEMA activities, please feel free to contact Suzanne Sollars at ssollars@mail.unomaha.edu

Minority and Clinical Travel Fellowships

Travel fellowships are available for minority individuals and clinicians interested in the chemical senses. The awards, funded by the National Institute on Deafness and Other Communication Disorders, help cover the costs for minority applicants and clinicians to attend AChemS. Over the last five years the minority travel awards have been extremely helpful in increasing the number of minorities attending AChemS. An average of 9 minority travel awards and 3 clinical awards have been awarded over the last five years. The minority travel fellowships have shown a positive growth rate over the years. In 2002 there were six minority travel awards recipients. In the following year of 2003 there were seven awards, a 16.67% increase from the previous year. Moreover, the trend maintains a positive growth with eight minorities receiving travel awards in 2004, and a greater increase of recipients in 2005 with 12 recipients, and 11 recipients in 2006. The minority applicants have been quite diverse in educational background from undergraduates, graduate students and post-docs. The clinical travel awards have stayed at a constant of 2-3 awards per year; three were awarded last year. The travel award committee has made every effort to support all the applicants that have applied for the travel fellowships.

Upcoming Meetings

The 15th International Symposium on Olfaction and Taste

AChemS proudly hosts the International Symposium on Olfaction and Taste (ISOT) in 2008. The meeting will be held in San Francisco at the Hyatt Embarcadero and is scheduled for July 21-25, 2008. Please check the AChemS website (www.achems.org) for further updates.

AChemS XXXI

AChemS XXXI will be held April 22 – 26, 2009 at the Hyatt in Sarasota, Florida.

Avian Olfaction Symposium

IBRO Satellite on Avian Brain, Cognition and Behavior

Heron Island, Queensland, Australia
19-23 July 2007

Contact Symposium Organiser (Graham Bell): g.bell@atp.com.au

Register and bookings: <http://workshops.med.monash.edu.au/behaviour07>

3rd "Summerschool on Human Olfaction"

Dresden, Germany, from

July 29th, to August 4th, of 2007,

organized by Thomas Hummel.

http://www.tudresden.de/medkhno/rieche_n_schmecken/summerschool_2007.htm

Lecturers / topics include:

Maria Larsson (Stockholm, Sweden) - cognition, odor memory

Matthias Laska (Linköping, Sweden) -

chemosensory discrimination

Steven Nordin (Umea, Sweden) - olfactory psychophysics

Bettina Pause (Düsseldorf, Germany) - pheromones

Benoist Schaal (Dijon, France) - chemosensory development

Silvain Lacroix (Geneva, Switzerland) - neurogenic inflammation of the nasal mucosa

Ep Köster (Wageningen, The Netherlands) - to be determined

Nancy Rawson (Philadelphia, USA) - to be determined

24th International Ornithology Congress (IOC)

AChemS membership will be pleased to know that the recent 24th International Ornithology Congress (IOC) held in Hamburg, Germany in August 2006 scheduled a symposium entitled "New Insights into the sense of smell in birds: from foraging behavior to individual recognition." This was the first session ever presented at the IOC in which avian olfaction was the sole topic. Three members of AChemS were among the five speakers, viz., Julie Hagelin, Gaby Nevitt, and Bernice Wenzel. The conveners were Francesco Belladonna, France, and Gaby Nevitt, U.S.; the other speakers were Anna Gagliardo, Italy, and Rich VanBuskirk, U.S.

Job Posting

Postdoctoral Position in Cellular and Systems Neuroscience, Howard University College of Medicine, Washington, DC

An NIH-funded post-doctoral position is available immediately to study neurons and circuits of the olfactory and limbic system. We are looking for a scientist to perform electrophysiological (patch-clamp) studies in olfactory bulb and amygdala slices from rats and mice. Experiments will examine mechanisms of neuronal interactions and signaling. Experience with electrophysiology is required. Initial appointment is for 1 year with renewal for up to 3 years contingent on performance.

Interested applicants should send curriculum vitae, statement of research interests, and names and addresses of 3 references to:

Dr. Thomas Heinbockel

Howard University College of Medicine, Dept. of Anatomy

520 W St., N.W.

Washington, DC 20059, USA

Phone: 202-806-9873 • Fax: 202-265-9873 • E-mail: theinbockel@howard.edu

websites: www9.georgetown.edu/faculty/jwg37/Heinbockel/home.htm

www.gs.howard.edu/gradprograms/anatomy

www.test.med.howard.edu/hucm/index.php/anatomy (under construction)

Howard University is an Equal Opportunity Employer.

News from *CHEMICAL SENSES* The Official Journal of AChemS, ECRO, and JASTS

Barry Ache, PhD

Susan Travers and Barry Ache, the current AChemS-appointed Executive Editors of Chemical Senses, want to remind the membership that Chemical Senses is your journal. Chemical Senses is published by Oxford University Press at the request of and in order to serve the three major chemical senses academic societies, AChemS, ECRO, and JASTS, making it the primary journal of our field. It is critical, therefore, that the membership of the three societies and, being the largest, the membership of AChemS in particular, regularly use the journal to publish their work. The quantity and quality of research appearing in the journal help shape the global impression of research in our field. As Chemical Senses is your journal, we hope you share our feeling that it is your responsibility to support it by using the journal to help showcase your work.

The journal publishes articles dealing

with conceptual advances in molecular, neurophysiological, neuroanatomical, behavioral, and psychophysical aspects of olfaction, taste, and trigeminal chemosensation, including technical and clinical advances in the field. The journal enjoys wide, international circulation among the chemical senses community and an impact factor of 2.5 that allows it to hold its own among related journals <http://chemse.oxfordjournals.org/>. The journal also includes high-quality reproduction of color photographs and uses advanced on-line publication. We're pleased to announce that the journal recently upgraded to the newest version of Scholar One software that produces PDFs for review that include both text and figures.

In 2006, Chemical Senses received 160 new submissions, 154 were Original Articles and 6 were Invited Reviews. Submissions were received from 28 coun-

tries, including: United States (53), Japan (16), Germany (12), France (11), Italy (10), United Kingdom (8), Netherlands (5), and others (<5). In 2006, 91 papers were accepted and 67 were rejected, giving the journal an acceptance rate of 57.6%. Based on decisions made in 2006, the average time from submission to first decision was 42.8 days. The average time from submission to acceptance (inclusive of time in revision) for the same period was 101.2 days. We believe that this time can be improved and ask the membership to help us by replying to our requests for review in a positive and timely manner.

Susan and I look forward to working with the membership to make the content of Chemical Senses representative of the best work in the field. We thank all of the members who have submitted their work and reviewed for us over the past year.

AChemS Meeting 2007



Join us!
April 25-29, 2007

INDUSTRY LIAISON COMMITTEE

Michael Meredith, PhD, Chair

The Industry Liaison Committee is appointed by the Executive Committee. Its role is to encourage interaction between the academic, industry and clinical constituencies of AChemS, an important part of the AChemS mission. We organize events at the annual meeting where industry and academic scientists can exchange information. We solicit suggestions from Corporate Members about new ways AChemS can help translate academic advances into practical applications. We solicit new corporate memberships and sponsorships in support of the AChemS mission. Industrial Liaison Committee members are: Mike Meredith (chair), Carol Christensen, Rachel Herz, Bob Margolskee and Craig Warren.

Taste and Smell in Translation

Last year we organized the Industry Symposium "Taste and Smell in Translation" in which four distinguished speakers presented their view of recent advances in chemical senses research of potential interest to industry scientists and policy makers. The symposium was well received. In addition to facilitating the flow of information, it also resulted in several new offers of support for AChemS. The reception and buffet following the symposium allowed industry and academic participants, and the symposium speakers, to make contacts and discuss common interests.

Science of Fragrance Award

Last year was also the first offering of the "Science of Fragrance Award" for the best presentation at the meeting relevant to fragrance industry interests. The award is made possible by the generosity of the Sense of Smell Institute, the research and education division of the Fragrance Foundation. The purpose is to bring the academic and industry communities together and to encourage research with potential industry applications. The award is offered again this year and the extended deadline is March 1. Anyone who has already submitted an AChemS abstract can take advantage of this extended deadline for submitting entries for the award. More information is available on the website.

New Corporate Memberships

Last year's corporate membership campaign resulted in ten new member companies joining AChemS, and also helped increase direct sponsorship of AChemS meeting events. Platinum level members and sponsors have their company logo on the AChemS Home page and all members and sponsors are acknowledged in the member section of the website and in the program. We thank them for their support and welcome suggestions for new ways to strengthen interactions between the academic and industry member communities. We are always interested in talking to potential new members and sponsors.

AChemS 2007

This year, we plan a suite of events as described in the "flyer" reproduced at right. There will be a mini-symposium on human odor and its control, sponsored by IFF, plus a series of short talks on taste-flavor topics. These presentations will be followed by an industry reception and buffet. The buffet this year is also partially sponsored by IFF. The flyer describing industry-related events, and a trifold brochure describing the benefits of Corporate Membership, are available from the AChemS Executive Office. Benefits include one or more regular memberships (depending on the level of corporate membership) and meeting registrations that enable company scientists or officers to attend the meeting and receive information about AChemS operations.

Industry-related events at the AChemS Annual Meeting 2007

The meeting of the Association for Chemoreception Sciences (AChemS) has become the largest annual conference on Taste and Smell research in the world. In 2007 it will be held at the Sarasota Hyatt Hotel in Sarasota Florida, April 25 – 29. Among a cornucopia of scientific presentations of all types, there will be two special industry-related events.

We are continuing our presentations on background and advances in chemical senses, geared to an audience from our industry constituency. These presentations are designed to help busy industry scientists and policy makers who may not have time to keep abreast of the torrent of basic research.

"Human Axilla: Why"

This mini-symposium, sponsored by IFF and organized by Krystyna Rankin and Carol Christensen, examines the sources and functions of various compounds produced in the human axillae; as well as the concept of malodor and its control.

"Recent Advances in Taste and Flavor"

This session, following the IFF sponsored mini-symposium, consists of a series of short talks on recent advances in taste and flavor research. This is the first of a series of symposia or themed sessions which will focus, in alternate years, on advances in taste-flavor or advances in olfaction-fragrance, presented at a level accessible to the knowledgeable non-expert.

Industry Reception/Buffer:

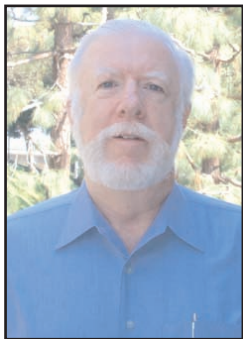
The symposia will be followed by a reception with buffet and cash bar – providing an opportunity for industry participants to network and to interact one-on-one with symposium speakers and other interested basic and applied scientists. Other industry-related activities at AChemS:

For the second year, AChemS will offer the Science of Fragrance Award, sponsored by the Sense of Smell Institute (SOSI), for the best scientific presentation at the meeting relevant to fragrance industry interests.

Other awards for pioneering research in the chemical senses include a new award, sponsored by IFF, for outstanding new advances in understanding the "Molecular Systems of Taste". Details of these and other awards and events at the annual meeting are available on the AChemS website www.achems.org. Please join us at the meeting – and as a Corporate Member/ Sponsor www.achems.org

RECIPIENTS OF THE 2006 ACHEMS AWARDS

Max Mozell Award for Outstanding Achievement in the Chemical Senses



Dr. William Cain
Univ. of California, San Diego

Research Focus:

The Chemosensory Perception Laboratory at UCSD places unique emphasis on how people

perceive chemicals and how chemicals exert short-term effects on people. Scientists and physicians in the lab devote themselves to the workings of the senses of smell and taste, and to physiological and psychological consequences of chemical stimulation. Smells and tastes can con-

tribute to feelings of well-being and to healthful living. They can also contribute to feelings of ill-health and to disorders. Some of our research concerns how people perceive flavors. Some of it concerns how people discriminate, identify, and remember aromas and fragrances. Some of it concerns indoor air pollution, sick building syndrome, and chemical sensitivity. Some of it concerns odor warnings, as they pertain to gas. The diversity of interests and projects changes as the lab grows in the fertile surroundings of

one of the world's leading research universities.

Since the laboratory falls within the Division of Otolaryngology-Head and Neck Surgery, it has a special commitment to understanding disorders of smell and taste. Members of the laboratory participate in the Nasal Dysfunction Clinic at UCSD. Hundreds of patients per year visit this clinic for the diagnosis and treatment of losses or distortions of smell and taste.

Ajinomoto Award for Young Investigator in Gustation



Dr. Lynnette Phillips
McCluskey
Medical College of
Georgia

Research Focus:

Taste receptor cells and neurons regenerate following neural injury. These

peripheral sensory cells are also capable of extensive plasticity following direct or distant injury. My lab is interested in the immune response to degeneration and resulting changes in taste function. We propose that immune activation is beneficial, and current studies focus on: the leukocyte response to degeneration novel regulation of gustatory function by cytokines and chemokines the role of adhesion molecules in the taste system degeneration and regeneration in the aging gustatory system and the effect of age-related immune deficiencies.

Our goal is to determine the fundamental mechanisms underlying taste-immune interactions, and to gain insight into general strategies to restore normal receptor cell and neural function.

AChemS Award for Young Investigator in Olfactory Research



Dr. Abdallah Hayar
Univ. of Arkansas for Medical Sciences

Research Focus:

Sensory coding in the olfactory bulb: Our neurons convey

information to each other via chemical and electrical synapses and perform computations that are vital to our survival. Our main research interest is to investigate synaptic transmission and function in the olfactory bulb. The olfactory bulb has become an attractive model to study cellular mechanisms underlying the encoding, transfer, processing and decoding of sensory information. Interest in this area was sparked by a series of dramatic breakthroughs over the past decade in our understanding of the organization and function of the peripheral olfactory system, cloning of the olfactory receptors, and identification of the olfactory transduction machinery. These advances have set the stage to unravel the mechanisms of early sensory processing by bulbar circuits. In addition, there has been recently an increase of inter-

est in olfactory dysfunction because the impairment of olfactory bulb seems to be associated with some neurodegenerative diseases. We are interested in investigating the synaptic organization of olfactory bulb glomeruli and the role of glomerular circuitry in olfactory coding in normal and pathological states. We have found that olfactory bulb external tufted cells are endowed with spontaneous rhythmic bursting. Using simultaneous patch-clamp recordings from pairs of neurons, we found that membrane potential oscillations and spontaneous bursting activity are highly correlated in cells associated with the same glomeruli. Synchronous bursting may play an important role in olfactory coding and in regulating the induction of synaptic plasticity at the first input stage of the main olfactory bulb. In summary, the purpose of our research is to unravel the fundamental network mechanisms responsible for encoding and processing odor information.

Don Tucker Award for Outstanding Graduate Student Presentation



Jason Aungst
The University of Maryland

Serotonin Increases
GABA Release
from
Periglomerular
Cells in Mouse
Olfactory Bulb

Periglomerular (PG) cells, the most populous neuron type in the glomerular layer, have physiological and morphological properties that distinguish them from external tufted (ET) and short axon (SA) cells. PG cells are small interneurons whose dendrites are generally restricted to a single glomerulus. Subpopulations of PG cells express GABA and/or dopamine. Proposed functions of PG cells are (i) presynaptic inhibition of ON terminals and (ii) postsynaptic inhibition of mitral/tufted cells, including ET cells. PG cells receive monosynaptic glutamatergic input from - and monosynaptically feed back onto - ET cells. This glomerular circuit suggests that modulation of PG cell activity affects ET cell activity. Glomeruli are heavily targeted by 5-HT fibers arising from the raphe nuclei. We have shown that 5-HT, via 5-HT_{2C} receptors, causes a depolarizing current in ET cells when pharmacologically isolated from excitatory and inhibitory inputs. Here we show that when PG cells are isolated from ET and other glutamatergic inputs, 5-HT, via 5-HT_{2A} receptors, induces GABA release

from PG cells observed as IPSCs in postsynaptic ET cells. This increased inhibitory input is action potential independent as it is unaffected by TTX. 5-HT modulation of PG cells may function to inhibit glomerular excitation through suppression of bursting activity in ET cells. Alternatively, 5-HT's combined actions on PG and ET cells may enhance the signal to noise ratio of glomerular throughput. Supported by NIH NIDCD DC 36940 & DC02173.

Moskowitz Jacobs Award for Research Excellence in Psychophysics of Taste and Smell



Dr. Paul Wise
Monell Chemical Senses Center

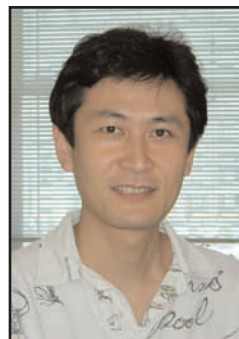
Research Focus:
Sensory coding in
the olfactory bulb:
Our neurons convey
information to each
other via

chemical and electrical synapses and perform computations that are vital to our survival. Our main research interest is to investigate synaptic transmission and function in the olfactory bulb. The olfactory bulb has become an attractive model to study cellular mechanisms underlying the encoding, transfer, processing and decoding of sensory information. Interest in this area was sparked by a series of dramatic breakthroughs over the past decade in our understanding of the organization and function of the peripheral olfactory system, cloning of the olfactory receptors, and identification of the olfactory transduction machinery. These advances have set the stage to unravel the mechanisms of early sensory processing by bulbar circuits. In addition, there has been recently an increase of interest in olfactory

dysfunction because the impairment of olfactory bulb seems to be associated with some neurodegenerative diseases. We are interested in investigating the synaptic organization of olfactory bulb glomeruli and the role of glomerular circuitry in olfactory coding in normal and pathological states. We have found that olfactory bulb external tufted cells are endowed with spontaneous rhythmic bursting. Using simultaneous patch-clamp recordings from pairs of neurons, we found that membrane potential oscillations and spontaneous bursting activity are highly correlated in cells associated with the same glomeruli. Synchronous bursting may play an important role in olfactory coding and in regulating the induction of synaptic plasticity at the first input stage of the main olfactory bulb. In summary, the purpose of our research is to unravel the fundamental network mechanisms responsible for encoding and processing odor information.

Other Awards in Chemosensory Awards

Wright Award in Olfactory Research



The Frank Allison
Linville's R.H.
Wright Award in
Olfactory
Research was est-
ablished in 1984
by Dr. Frank

Allison Linville with support of General Monitors Inc. in recognition of the accomplishments of Dr. Robert H. Wright to the understanding of olfaction, the sense of smell. This \$30,000 annual award is given to an individual in recognition of an outstanding and ongoing achievement in research in olfaction. The 2006 award recipient was Dr. Kazushige Touhara, Associate Professor in the Department of Integrated Biosciences, University of Toyko, presented for his work in the molecular biology of the olfactory and vomeronasal systems.